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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,621

04/25/2008

Wolfgang Leinweber

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EXAMINER

BELYAEV, YANA

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,621	Applicant(s) LEINWEBER, WOLFGANG	
	Examiner YANA BELYAEV	Art Unit 4122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/25/2008</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Abstract

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. The abstract of the disclosure is objected to

because form and legal phraseology are used in the abstract. Correction is required. See MPEP § 608.01(b).

Drawings

3. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). For purposes of examination, the examiner has used the drawings submitted with the original PCT application (WO 2005/073587).

Information Disclosure Statement

4. The information disclosure statement filed 04/25/2008 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 8-12, 14, 15, 18, 20-24, 26 is rejected under 35

U.S.C. 102(b) as being anticipated by US Patent 4,968,468 (Leinweber hereinafter).

With respect to claim 1, Leinweber discloses a method for producing friction linings by pressing a pourable mass, wherein the mass is pre-compressed and subsequently the pre-compressed mass is conveyed to a press and there is subjected to a final compression in a press mold having at least one cavity **(see abstract)** , characterized in that the pourable mass is pre-compressed already in the press mold against the ejection ram **(see column 4, lines 1-13)**, and the pre-compressed mass that has been pre-compressed against the ejection ram is conveyed directly in the press mold to the press where it is finally compressed **(see column 4, lines 13-35)**. Leinweber does not specifically disclose a pourable mass, but Leinweber

Art Unit: 4122

refers to a friction layer powder which Leinweber defines as any supporting material which can be pressed into a friction lining including fibrous material and granular or flake materials **(see column 2, lines 10-13)**. Fibrous material and granular or flake materials fit within the definition of pourable mass.

With respect to claims 8 and 10 Leinweber discloses that before the final compression of the mass, a backing plate is put on the mass that has been pre-compressed in the press mold **(Leinweber, column 9, lines 43-50)**. Furthermore, Leinweber discloses that the press ram, the press mold, and the backing plate are automatically separate from each other after the completion of the friction lining by means of springs **(Leinweber, column 9-10, lines 63-5)**.

With respect to claim 9 Leinweber discloses that the pre-compressed mass is subject to several, independently adjustable, press procedures for the final compressions **(Leinweber, column 9, lines 55-62)**.

With respect to claims 11 and 12 Leinweber discloses an arrangement for producing friction linings by pressing a pourable mass,

Art Unit: 4122

including a device for pre-compression of the mass and a press with a press mold having at least one cavity for final compression of the mass, the press following the pre-compression device via a conveying unit **(see claim 1)**, characterized in that the pre-compression device has a receiving means, which is accomplished by the intermediate mold, for the press mold **(Leinweber, Figure 1)** and in that the conveying unit is adapted for transportation of the press mold with the mass pre-compressed against the intermediate mold, and the press is adapted for direct final compression of the pre-compressed mass in the press mold against the ejection ram **(Leinweber, column 9, lines 16-22)**.

With respect to claim 14 Leinweber discloses that the height of the press mold naturally can be substantially smaller since it need only accommodate the compression ratio actually preformed by the press **(Leinweber, column 2, lines 52-65)** which inherently implies that the height of the press mold corresponds to the finished friction lining.

With respect to claim 15 Leinweber discloses an arrangement characterized in that the counterpressure piston for compressing the pourable mass in the intermediate mold is provided for precompressing **(Leinweber, column 9, lines 43-49)**.

With respect to claim 18 Leinweber discloses that an intermediate layer compression device is provided for compression of a pourable intermediate layer material upstream of the pre-compression device, viewed in conveying direction (**Leinweber, column 9, lines 19-22**).

With respect to claim 20 Leinweber discloses an arrangement characterized in that a pressing ram is provided for supporting and carrying the press form during transportation (**Leinweber, column 9, lines 19-22**).

With respect to claim 21 Leinweber discloses an arrangement which is an inherent variation of claim 8. Thus they are interpreted and rejected for the reasons set forth in the rejection of claim 8.

With respect to claim 22 Leinweber discloses that the backing plate facing the pre-compressed mass has a plane surface (**Leinweber, Figure 1, element 16**).

With respect to claim 23 Leinweber discloses that the side of the backing plate facing the pre-compressed mass comprises at least one

Art Unit: 4122

plunger-like projection which enters the cavity in the press mold during pressing (**Leinweber, column 9, lines 40-49**).

With respect to claim 24 Leinweber discloses that the connecting region between the press mold and the ejection ram is sealed by the application of force on the press mold during final pressing (**Leinweber, column 9, lines 38-42**).

With respect to claim 26 Leinweber discloses an arrangement which is an inherent variation of claim 10. Thus they are interpreted and rejected for the reasons set forth in the rejection of claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 4122

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 2-5, 13, 17, 25, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 4,968,468 (Leinweber hereinafter).

With respect to claim 2 Leinweber discloses that the ejection ram and the press mold are put on the press ram after the friction layer powder has been introduced into the press mold (**see column 9, lines 9-12**). While claim 2 states that the carrier plate and the press mold are put on a base plate before the pourable mass is introduced into the press mold, changes in sequence of adding ingredients is not patentable in the absence of new or unexpected results (see *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)). Therefore, unless there is criticality in that the carrier plate and the press mold are put on a base plate before the pourable mass is introduced into the press mold, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber so that the carrier

plate and the press mold are put on a base plate before the pourable mass is introduced into the press mold.

With respect to claims 3 and 4 Leinweber discloses that the intermediate mold is put on the press mold after friction layer powder is introduced into the press mold **(see column 9, lines 9-12)** and the intermediate mold is lifted off the press mold after pre-compression of the friction layer powder and before the press mold with the pre-compressed mass is further conveyed **(see column 9, lines 36-37)**. While claim 3 states that the intermediate mold is put on the press mold before friction layer powder is introduced into the press mold, changes in sequence of adding ingredients is not patentable in the absence of new or unexpected results (see *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946)). Therefore, unless there is criticality in that the intermediate mold is put on the press mold before friction layer powder is introduced into the press mold, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber so that the intermediate mold is put on the press mold before friction layer powder is introduced into the press mold.

With respect to claims 5 and 17 Leinweber discloses that the friction layer powder is introduced into the press mold under precompression with the help of an actuating device and rod (**see column 9, lines 15-18**) which discloses an obvious alternative to introducing the mass into the press mold under precompression with the help of an axially shiftable screw which is rotatably mounted in a housing. Introducing the mass into the press mold under precompression with the help of an axially shiftable screw which is rotatably mounted in a housing is a change in configuration of introducing the mass into the press mold under precompression with the help of an actuating device and rod, which is not patentable (see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)). Therefore, unless there is criticality in introducing the mass into the press mold under precompression with the help of an axially shiftable screw which is rotatably mounted in a housing, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber and introduce the mass into the press mold under precompression with the help of an axially shiftable screw which is rotatably mounted in a housing.

With respect to claim 13 Leinweber does not specifically disclose an arrangement where different pre-compression molds are provided which can selectively be chosen by means of a rotation device. However, Leinweber

Art Unit: 4122

discloses a magazine supplying a plurality of stacks of different backing plates. Having the magazine utilize a turntable machine, allows the production of a variety of different brake shoes (**Leinweber, column 7, lines 35-51**). Utilizing a turntable machine to automate a process of choosing pre-compression molds, such as what the magazine uses, is providing an automatic or mechanical means to replace a manual activity which accomplishes the same result and it not patentable (see *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958)).

Thus it would be obvious to one of ordinary skill in the art at the time of the invention to utilize a turntable machine to automate a process of selectively choose pre-compression molds in a similar manner.

With respect to claim 25 Leinweber does not specifically disclose that several, independently adjustable, press stations are provided for final compression, but Leinweber does disclose that the pre-compressed mass is subject to several, independently adjustable, press procedures for the final compression (**Leinweber, column 9, lines 55-62**). Therefore, unless there is criticality in providing multiple press stations instead of several, independently adjustable, press procedures within the same press stations, providing multiple press stations would be merely a matter of obvious engineering choice (see *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347,

Art Unit: 4122

349 (CCPA 1965)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber to provide several, independently adjustable, press stations for final compression.

With respect to claim 27 Leinweber discloses a means for selectively lifting the closing plate and the press mold from the base plate (**Leinweber, column 9, lines 31-35**). While Leinweber does not specifically disclose a device including vertically shiftable rods which have at least three portions of different diameters, unless there is criticality in providing vertically shiftable rods which have at least three portions of different diameters, using vertically shiftable rods which have at least three portions of different diameters would be merely a matter of obvious engineering choice (see *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965)). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber to provide vertically shiftable rods which have at least three portions of different diameters as a means for selectively lifting the closing plate and the press mold from the base plate.

With respect to claim 28 Leinweber discloses an arrangement characterized in that the intermediate ram and counterpress cylinder are provided for maintaining the backing plate and the press mold in their lifted

positions **(Leinweber, Figure 1, elements 4 and 9)**. While Leinweber does not specifically disclose providing retention arms for maintaining the closing plate and the press mold in their lifted positions, using retention arms instead of an intermediate ram and counterpress cylinder would be merely a matter of obvious engineering choice (see *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965)). Therefore, it would have been an obvious substitution to one of ordinary skill in the art to modify Leinweber and use retention arms in place of an intermediate ram and a counterpress cylinder.

7. Claims 6, 7, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leinweber as applied to claims 1-28 above, and further in view of US Patent 6,565,783 (Chiba hereinafter).

With respect to claims 6 and 7 Leinweber discloses that an intermediate layer material is applied as an intermediate layer on the ejection ram after the friction layer powder is introduced into the press mold and is pre-compressed **(see Leinweber, column 9, lines 19-22)**. Chiba discloses that organic fibers and inorganic fibers including glass fibers and metal fibers are included in the intermediate layer. Chiba further discloses that without the fibrous material the intermediate layer will become very

Art Unit: 4122

brittle and the adhesive layer may be peeled off from the friction material layer, making handling difficult (**see Chiba, column 6 lines 62-67 and column 7 lines 1-2**). Unless there is criticality in applying intermediate layer material as an intermediate layer on the ejection ram before the friction layer powder is introduced into the press mold, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber and apply intermediate layer material as an intermediate layer on the ejection ram before the friction layer powder is introduced into the press mold. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use organic and inorganic fibers such as glass fibers and metal fibers in the intermediate layer material in order to prevent the intermediate layer from being brittle or peeling off of the friction layer (**see Chiba, column 6 lines 62-67 and column 7 lines 1-2**).

With respect to claim 16 Chiba discloses that a hopper, which serves as a reservoir and a chute is provided for introducing the pourable mass into the pre-compression mold (**Chiba, column 4, lines 65-66**). While the hopper does not have a displaceable component equivalent to a displaceable chute, unless there is criticality in having a displaceable displaceable component equivalent to a displaceable chute it would have

Art Unit: 4122

been obvious to one of ordinary skill in the art at the time of the invention to modify Leinweber in view of Chiba and introduce the pourable mass into the pre-compression mold utilizing a hopper with a displaceable component equivalent to a displaceable chute in order to save space **(Chiba, column 3, lines 9-11).**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YANA BELYAEV whose telephone number is (571)270-7662. The examiner can normally be reached on M-Th 8:30am - 6pm; F 8:30 am- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. B./
Examiner, Art Unit 4122

/Timothy J. Kugel/
Primary Examiner, Art Unit
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